4.2 Project Area Needs Assessment

This needs assessment reflects a synthesis of our locally conducted needs assessment and the needs assessment contained in the Virginia Department of Health's Title V Plan. The Regional Perinatal Councils and the Division of Women's and Infants Health, Virginia Department of Health (VDH) 2001 report on "Perinatal Under Served Areas In Virginia" designated Richmond City an under served area due to under utilization of perinatal services and poor birth outcomes. Infant mortality and low birth weights in Richmond City are characterized by racial and socioeconomic disparities. According to the Perinatal Councils, [1]African American women of low socioeconomic status, residing in urban areas are most affected by the problems of infant mortality and low birth weight. Their report indicates the correlation between the incidence of infant deaths with city census tracts of low socioeconomic status, where the number of infant deaths rise to 30 infant deaths per 1,000 live births.[2]

The Richmond Infant Mortality Review used mapping software to map 30 Richmond infant deaths during 1998 using the mother's home address. The mapping showed most infant deaths clustered in three of Richmond's public housing and low income neighborhoods, located on the north, east and south sides of the city. This suggests a relationship between features of the neighborhoods and the high incidence of infant deaths. Data collected for this needs assessment will serve as a baseline for evaluating the extent to which neighborhood characteristics including physical, social, economic and political domains influence health behaviors and outcomes. See Appendix 6 for a map of our targeted neighborhoods and for a table of demographic and statistical information on Richmond's perinatal health indicators.

4.2.1 Population

The City of Richmond (1990 pop. 203,056) is the project site for the Richmond Healthy Start Initiative (RHSI). [3]Richmond is the central city of one of the East Coast's most rapidly growing metropolitan areas, covering 60 square miles, with 3,156.4 persons per square mile. Compared to the 1990 population data from the census of that year, year 2000 population was estimated by the Virginia Employment Commission - Economic Information Services Division to have actually decreased to 193,432. In contrast, the greater Richmond metropolitan area including the counties of Henrico, Chesterfield and Hanover, have has seen significant population growth.

Government is the leading industry/employer in Richmond followed by several large and in some instances, Fortune 500 companies such as Philip Morris, RJ Reynolds, and Ethyl Corporation. Richmond's historical role in the Revolutionary and Civil Wars attracts tourists traveling the I95 corridor. Richmond was the capital city of the south during the Civil War.

While the greater Richmond Metropolitan Area has enjoyed a healthy and growing economy over the last decade, many of Richmond City's neighborhoods are in decline. Those with better

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[1]Regional Perinatal Councils and Division of Women's and Infants Health, (DRAFT) Perinatal Under Served Areas In Virginia, 1999, Virginia Department of Health, 2001.
[2] Ibid., pg.---
[3] Richmond City Master Plan, 7/24/00

financial means left Richmond to live in the suburbs of surrounding counties. The economic gains realized by families in the greater Richmond metropolitan area during the 1980's and '90's starkly contrast with declines in measurable gains to urban families living in Richmond's densely populated public housing and low income neighborhoods located in the north, east and south sides of the city.

Census data show that in 1990 there were 112,406 African Americans residing in Richmond, and 27% (30,477) African American women of child bearing age. There were 88,028 whites living in Richmond, 26% (22,620) of which were white women of child bearing age. There were 1,744 Hispanics, 26% women of child bearing age. A small number (656) described themselves as "Other".

Educational Attainment

[4]Educational attainment for African Americans in Richmond is lower than for whites. Forty four percent (29,619/67,782) of African Americans over 25 years of age have less than a high school diploma or general equivalency while only 20% (12,953/65,242) of whites do not have a high school diploma.

Graduation rates of ninth graders in Richmond were behind graduation rates for the metropolitan area in 1999. Only 75% of ninth graders in Richmond completed high school. These rates have decreased slightly from 1998 to 1999. Further, eleventh grade English Standards of Learning scores have remained steady at about 55% since 1998, in spite of efforts to improve SOL scores. Richmond kindergarten students scored about 20 (62/100 – 84/100) points lower than students in surrounding school districts on measures of school readiness.[5]

Income

The median income of families in Richmond is significantly lower than those of neighboring counties. The median family income for Richmond in 1990 was $29,921.00. Median incomes for surrounding counties was $46,063.00 (Chesterfield) and $42,173.00 (Henrico). In fact, greater Richmond had the nation's lowest poverty rate at 9.4% (1990 census). However, Richmond bears a disproportionate share of the metropolitan areas poverty. In 1990, 21% of Richmond residents had incomes below poverty[6]. Seventy seven percent were African Americans. Per capita income for African Americans in 1990 was $8,676.00 illustrating high unemployment and underemployment for African Americans.

Target Population

[7]Approximately 15,000 women of child – bearing age live in the RHSI targeted census tracts on Richmond's north, east and south sides. Fifty-two percent of these women are below the prescribed federal poverty level and 32% have less than a high school diploma. 1990 census

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[4] 1990 Census data
[5] Youth Matters, Greater Richmond Community Indicators Book, 2001.
[6] 1990 Census
[7] (estimate based on 1990 census tract data)

data estimates show that in 1989 the per capita income for the three target neighborhoods was $6,638.00. Forty five percent of all African American children under 18 years of age in Richmond lived in families who earn below the Federal Poverty Level.

According to policy analysts at the Virginia Department of Medical Assistance (DMASS), on January 6, 2001, there were 718 pregnant women receiving Medicaid and 4,806 children under 6 years of age receiving Medicaid in Richmond. Another 1,954 adults in the city were receiving Temporary Aid To Needy Families (TANF). Richmond City is estimated to have a total of 7,559 children eligible for Title XXI and Title XIX and 4006 are thought to be Medicaid eligible. Children eligible for FAMIS (Richmond's Title XXI program) are estimated to be 3,553; however the actual number of children enrolled in FAMIS is 670, that is 19% of all eligible children in Richmond.

Immunizations

Reliable immunization data for children under two years old is not available. Less than 70% of incoming Kindergarten students in Richmond Public Schools 1998 – 1999 had received Regimen I immunizations. Nearly 80% had received Regimen II immunizations.[8] Public health department officials estimate that less than 60% of children under 2 years of age are up to date with immunizations.

Infant and Neonatal Mortality

[9]Richmond's overall infant and neonatal mortality rates per 1000 live births were 13.2 and 10.6 respectively (averaged 1996-1998). These rates are a drop from 19.1% (infant) and 15.7% (neonatal) mortality rates in 1996. While this decrease is encouraging, efforts must be continued to maintain and improve such positive results. Of great concern are the maternal and infant health disparities of racial and ethnic minorities. In Richmond, African American infant and neonatal mortality rates per 1000 were 17.5 and 13.9 respectively, while rates for whites were 5.3 and 4.2. Post neonatal deaths (1996 – 1998) occur about a third less often than neonatal deaths (14/32) among all races.

Low Birth Weight

Statistics indicate that 13% (401/3,019) of all births to African American and white women are low birth weight (1996-1998). But low weight births among African American women were higher than that of the proportion of their white counterparts. African American women gave birth to 84% (335/401) of all babies born with low birth weight from 1996 to 1998.

Data averaged from 1996 – 1998, show 26% (760/3,019) of births in Richmond were less than 38 weeks gestation. African Americans mothers gave birth to 71% (552/780) of all babies born before 38 weeks gestation. The Richmond Fetal Infant Mortality Review (RIMR) infant death data (1995 – 1999) shows that the highest number of infant deaths (44/129) were caused by prematurity. Of 129 infant deaths reviewed by RIMR, 81% (105/129) were African

[8] Youth Matters, Greater Richmond Community Indicator Book,2001.
[9] Center For Health Statistics, The Virginia Department of Health, data averaged for 1996, 1997, 1998.

American infants. Sixty five percent (84/129) of these infant deaths weighed less than 2500 grams, weight is unknown for 5 deaths. Congenital anomalies (26/129) were the second leading cause of death. SIDS was listed as the cause of death for 4 deaths.

Importantly, 57% (74/129) of mothers whose infants died during 1995 – 1999 reported that they received no prenatal education, such as signs and symptoms of early labor, and how to count fetal kick counts.

Teen Pregnancy

Richmond's teen pregnancy rate is among the highest in the state. In 1997, 113.3 per 1000 female teens aged 15-17 years old became pregnant compared with state figures of 44.9 per 1000 in the state. For female teens aged 18-19, the city rate was also higher than the rate at the state level. Richmond's teen pregnancy rate for 1997 was 136.3 per 1000, compared to 96.2 per 1000 statewide. Richmond's teen birth rate declined in 1999 to 41 per 1000, down from 44 per 1000 in 1998.

The live birth rate for African American teens is higher than live birth rates for white teens. African American teens under 18 years of age gave birth to 87% of the total number of live teen births. The percent of live births to white teens 18 years old and younger was 10%. Of the total number of live births to African American mothers in Richmond, 16% were teen moms. Of 572 live births in 1997 to mothers in RHSI targeted neighborhoods, 74% were to teen mothers.

Prenatal Care

Prenatal care is critical to improve birth outcomes. Prenatal care can help identify women at risk for complication during pregnancy and receive proper care.

Region 6 (perinatal designation for central Virginia including Richmond) has the highest early entry into prenatal care rates in the state, but an important racial and ethnic disparity occurs in actual access and utilization of prenatal care in Richmond. Whereas an average of ninety percent of white women who had a live birth (1996 – 1998) entered prenatal care in the first trimester of their pregnancy (meeting the Healthy People 2000 goal), only 71% of African American mothers who had a live birth during the same time period began prenatal care in the first trimester. Richmond community health professionals warn that entry into prenatal care as a measurement for African American women provides an incomplete and perhaps misleading picture of their prenatal care utilization patterns. Of the 56 live births to mothers (average 1996 – 1998) who reported no prenatal care in Richmond (1996 – 1998 average), 88% were African American and 11% were whites. Health professionals warn that this indicator is for the most part "self – report" and suspected to be under reported. Prenatal care data on the 129 infant deaths (1995-1999) in Richmond indicate 17 mothers did not receive any prenatal care, and 73 had less than 8 prenatal visits.

Factors Related to Infant Death

[10]Data from the RIMR analysis of 129 infant deaths (1995 –1999) show over 75% of infant deaths occurred to single women. An additional 6 women were either separated or divorced, making a total of nearly 80% (103/129) of these births to single women. In Richmond, 59% of all births during 1998 were to unmarried mothers and 79% of births to African American women in that year were to unmarried mothers. One would expect even higher numbers of the single pregnant and postpartum women living in public housing on the north, east and south sides of Richmond. Richmond's overall non-marital births for 1998 and 1999 were 64% and 59% respectively.[11] The decrease may be due in part to the state's aggressive campaign to decrease out of wedlock births.

According to the Virginia Department of Health, in 1998 Richmond had the highest number of cases of tuberculosis in Health Planning District 15, the cause of three deaths. Homicide and legal intervention are listed as the cause of death for 174 persons, 43 white (not gender specific) and 126 African American (not gender specific).

In a 1993 Richmond survey when asked why some health experts recommend that women take 400 micrograms of B vitamin or folic acid, of 209 respondents less than 24% (50/209) correctly chose "to prevent birth defects".

Social Factors Related To Infant Death

Low wages create financial problems for low income individuals and many have been challenged to keep up their properties. Richmond's urban neighborhoods have many older homes that require constant attention to maintain their stability and appearance and low income neighborhoods have fallen into disrepair, leaving residences structurally and environmentally unsound. The city has begun an aggressive "round –up" of owners who have abandoned or decaying property. However, this usually results in razing the building, rather than revitalization, making fewer housing units available for low income families.

[12]Juvenile delinquency data are often used as a measure of community risk. Richmond's juvenile crime arrest rates peaked in 1991 with nearly 7,000 juvenile arrests per 100,000 then declining to slightly above 5,000 arrests per 100,000 in 1994. The nature of these crimes include; murder/non-negligent manslaughter, rape, robbery, aggravated assault, burglary, larceny and motor-vehicle theft. After the decline in 1991, Richmond's juvenile crime rates remain two and a half times the national and state rates. The FY 1994 profile of 1,573 juvenile offenders, 62% were African American, while 39% were white or another race. Eighty eight percent were male and 12% were female. Eighty two percent were 15 or older, 18% were 14 years old or younger. Upon admission, 74% described moderate or severe family dysfunction, 19% had a father who was incarcerated, 25% reported either physical (16%) or sexual abuse. Even more shocking is the number of Richmond's youth murdered under the age of 20 years old almost doubled between 1993 and 1994. Population projections for juvenile correction centers forecasts the number of serious juvenile offenders incarcerated in 2004 will be 2,070 (year 2001 projection =

[10] Richmond Fetal Infant Mortality Review data, 2000.
[11] Youth Matters, Greater Richmond Community Indicator Book, 2001.
[12] Comprehensive Juvenile Delinquency Data Book, Youth Services Commission, 1995/2001. Data cited is most recent data available. 2001 edition has not been released as of this date.

1,675). The number of less serious juvenile offenders will rise from 579 (projected year 2001) to 715 in 2004. Census tract maps indicate area's with the city's highest rate of juvenile crime are RHSI target neighborhoods.

According to the Child Safety Institute in New York, about two-thirds of all child abuse cases involve children between the ages of 5 and 18. Violence towards children--especially severe violence--is more likely to occur in households with annual incomes below the poverty line. The number of Richmond's founded cases of child abuse or neglect during 1999 was 572 (rate of 15.9 per 1000 children) indicating a rise since 1997. Similarly, 866 children under 18 years old were placed in foster care during 1999, making Richmond first in the state (135 out of 135) for children placed in foster care. That high ranking is always associated with higher risk or more problems.

Public schools play an important role in Richmond. For this academic year 2000 – 2001, 87% of children attending Richmond City Public Schools receive free lunch and breakfast. Based on the 1989 per capita income levels, one may assume many children from RHSI target neighborhoods are fed two meals a day, both at school, making school their best if not only source of nutrition.

Substance Abuse and Depression

"Perinatal substance abuse continues to be a problem particularly in Richmond as reported by health care providers seeing patients and discharge diagnosis tracked at MCV (Medical College of Virginia). Inpatient services are limited…those that exist are often full…treatment options have diminished…"[13]

Richmond hospital discharge data identified 132 women at delivery with Alcohol and Other Drug (AOD) diagnosis in 1998[14]. Women were diagnosed AOD positive if 1) drug dependent during pregnancy 2) mental disorder (related to substances) during pregnancy 3) alcohol dependence, drug dependence, non-dependent abuse not reported, recognized by withdrawal symptoms, or other obvious symptoms. In this study, Richmond women were found to be 6.5 times more at risk of an AOD related pregnancy than statewide. Of the 132, 19% had alcohol related pregnancy, 96% had drug related 15% had both alcohol and drug related pregnancies.

In Richmond the proportion of AOD deliveries increased with age; .8% of teens 17 or younger were AOD at delivery; 2.8% of 18 – 24 year olds were AOD at delivery and 6.9% of 25 – 34 year olds were AOD at delivery. No AOD births were reported to women over 34. Of special note, women in treatment receiving substance abuse services were younger than their cohorts identified AOD at delivery, diminishing the effect of substances on the fetus and negative birth outcomes. In Richmond, 6.2% of non-white mothers had AOD related deliveries compared to 1.7% of whites. The proportion of deliveries among residents in target neighborhoods with AOD related deliveries were the highest in the city, ranging from 5.3% to 7.1%.

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[13] Regional Perinatal Councils and Division of Women's and Infant's Health, Virginia Department of Health, Perinatal Under Served Areas In Virginia, pg. 1331999.

[14] Survey and Evaluation Research Laboratory evaluation data.

The number of persons with HIV infected through intravenous drug use (IDU) is related to the use of other substances. Central Virginia has seen an increase in the number of persons with HIV – IDU transmission since 1996. This follows a sharp drop from over 40 to low 20's in 1995 to 1996. Aggressive street outreach programs targeting IDU's are credited with impacting a reduction in HIV –IDU transmission.[15]

The City of Richmond has 1,725 individuals diagnosed with HIV and 785 individuals diagnosed with AIDS (June 2000). Twenty five percent (196/785) of the total number of persons with HIV are female, 75% (589/785) are male. Of these, 79% are African American and 21% white. Of the 785 persons with AIDS , 83% (652/785) are male and 17% (133/785) female. Seventy – one percent of persons with AIDS in Richmond are African American, 29% are white. Twenty eight children between the ages of one year and 12 years of age have HIV/AIDS. There are 8 known children with HIV/AIDS under 5 years old, 3 of whom are newborns. The number of women with AIDS in Central Virginia including Richmond is twice the rate of the next highest region. Trend data for 1994 – 1998 indicate the rate of transmission through heterosexual contact has steadily increased since 1995, with a slight downward trend in 1997, but back up in 1998. Perinatal transmission is the leading cause of HIV infection among children in Central Virginia.

In addition to unacceptable rates of HIV and AIDS, Richmond has the shameful distinction of the highest rate of chlamydia (2,176 cases in 1997) in the country. A total of 138 syphilis cases and 1,466 cases of gonorrhea were recorded by VDH in 1997. At 68.4 per 1000, Richmond youth ages 12 – 17 have the highest rate of sexually transmitted diseases in the state.

Major depression is suspected to affect 21% of women sometime in her life span. Depression is assumed to affect Healthy Start participants at a higher rate due to high levels of daily stress. Women with substance abuse problems may have undiagnosed depression. The nature of the primary disease complicates timely identification and appropriate treatment for these women.

Provider training is needed to increase awareness of the potential for women from target neighborhoods to suffer from depression, their expression of the disease, and appropriate treatment options. Extended and comprehensive case management services designed to identify depression and initiate effective treatment will help these women remain drug free, allowing time to form healthy relationships with their infants. Case management services should be extended to assist AOD perinatal women throughout the total interconceptional period.

In 1998 the RCDPH privatized its clinical services, reducing the number of community based public health clinics and the types of services the clinics provide. The state Medicaid system's change to managed care contracts necessitated provider changes and new rules for specialty service for recipients resulting in fewer medical specialists serving Medicaid clients. Increased competition among providers has inhibited referrals based solely on client need and preference. Many poor families are uncomfortable with a new system of care. Private physicians and line staff are not especially cultural sensitivity. Wrap around support services, such as WIC are now less likely to be co-located in clinic as they were in the past. The Central

[15] Survey and Evaluation Research Laboratory, Five Year Trends In HIV/State of Virginia, 1998. All HIV/AIDS data is from this source unless otherwise noted.

Commonwealth Perinatal Council identified client's lack of knowledge regarding how the new plans works and how to choose a plan as major sources of frustration for them. Clients need information and support to help them navigate through these issues and system changes.